

Oxygen and life support



Tailwheel Assemblies and Accessories

2000, 3200, 3200A, 3400, 3425, 3450 Series



The AVOX Systems Tailwheel Assemblies are designed for trouble-free performance on Piper, Cessna, and other light aircraft. Models are also available for helicopter use, as well as for liaison and primary training craft.

Most models feature either 8" or 10" pneumatic wheels with full swivel mechanisms sealed to keep out water, sand, and mud. The rugged yet lightweight construction withstands continuous hard service and use over rough terrain.



AVOX Systems

AIRCRAFT SYSTEMS SEGMENT



SAE AS9100



Important Information

1. These tailwheels are intended for use as direct replacement for identical original equipment only.
2. The User/Owner/Installer is responsible for determining the correct model tailwheel for any application.
3. Once the proper tailwheel has been selected, it is the responsibility of the User/Owner/Installer to determine which accessories, if any, are required and how many of the components listed on this sheet with "A/R" (As Required) in the No. Required Column are required in any particular application.
4. It is the responsibility of the User/Owner/Installer to install and adjust the tailwheel in conformance with the specifications and requirements of the aircraft manufacturer.

2000 Series Tailwheel

The AVOX Systems 2000 Series is a high-performance, single-arm assembly with full swivel capabilities. The tailwheel has a 6" solid rubber tire, assuring rugged reliability for light aircraft at comparatively low cost. This series was formerly designated 3-24B and 3-24B-1

Accessories

P/N 2151-00 Chain Type Tail Wheel Connector Assembly with 10" chain

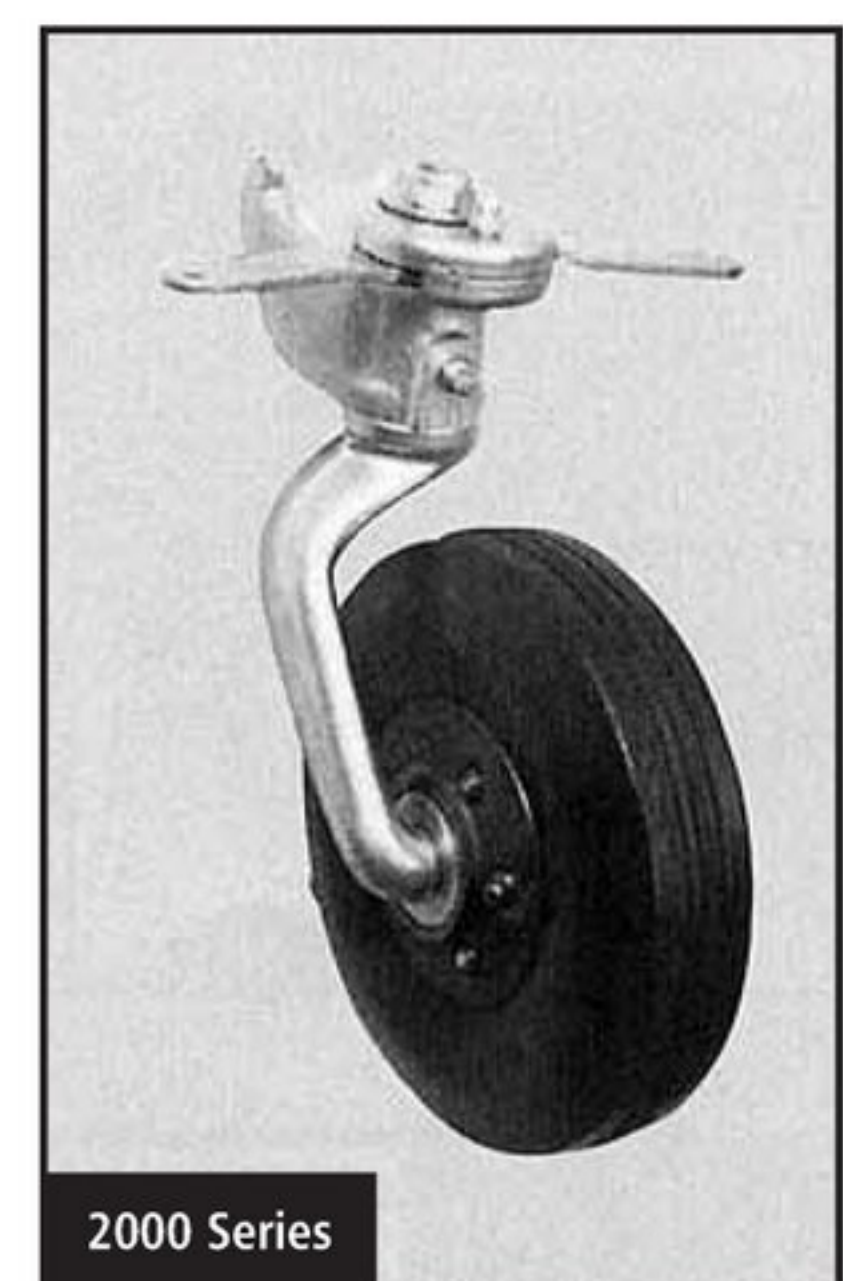
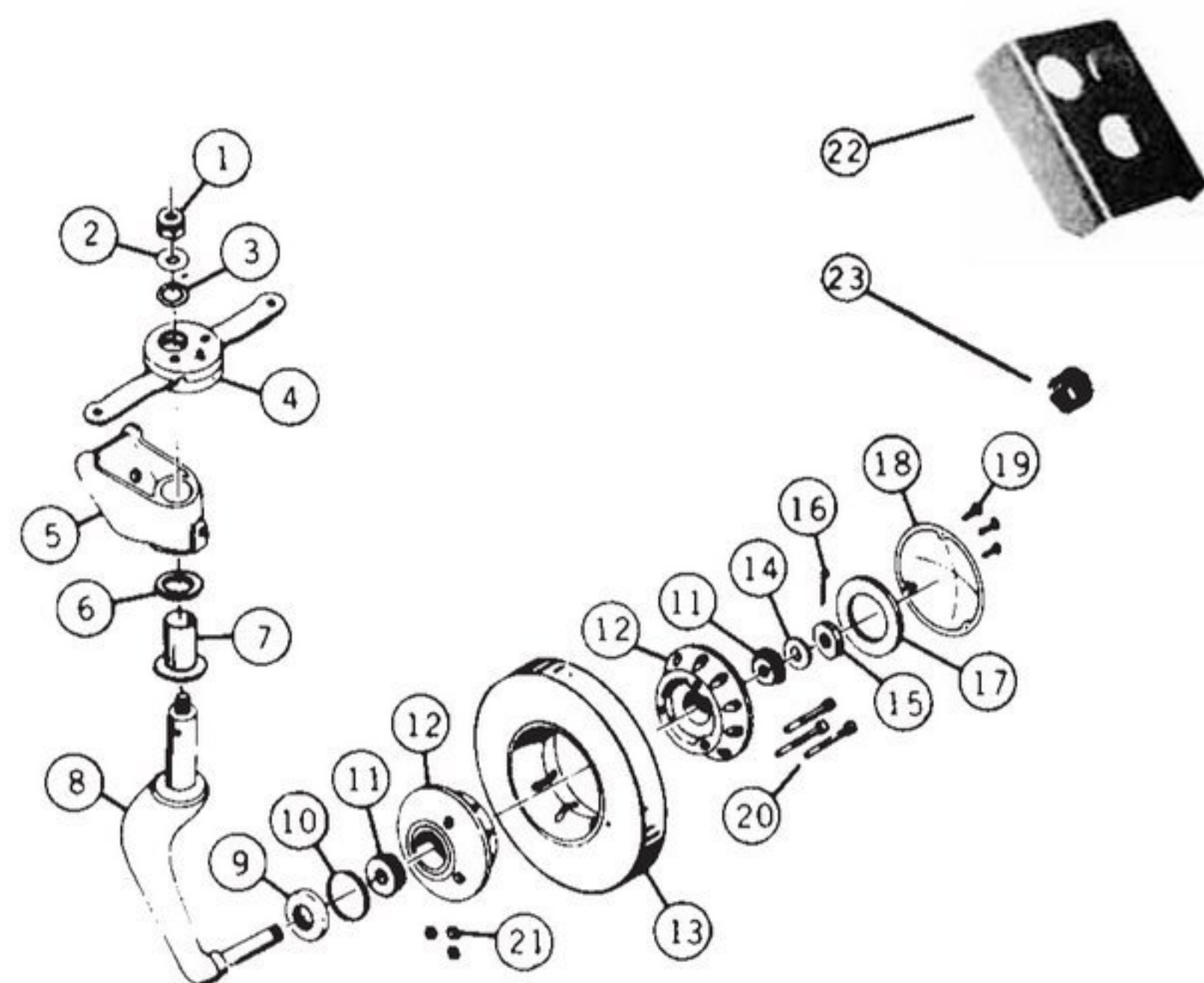
P/N 1840-00 Wheel Assembly

P/N 3239-01 Chain Type Tail Wheel Connector Assembly with 15" chain

Item No.	Part No.	Description	No. Required	
			2000-00	2000-01
1	18470-00	Nut, Self-Locking	1	1
2	2346-00	Washer	1	1
3	2085-00	Shim	A/R	A/R
4	1709-00	Arm Assembly	1	
5	2077-00	Bracket Assembly**	1	1
		NOTE: Incl. Items No. 6 & 7		
6	1781-00	Cap-Bushing	1	1
7	1800-00	Bushing	1	1
8	2078-00	Fork	1	1
9	1863-00	Retainer, Grease	1	1
10	1862-00	Spacer-Grease Retainer	1	1
11	1863-00	Bearing Set	2	2
12	1967-00	Hub Kit	1	1
		NOTE: Incl. Items No. 20 & 21		
13	1879-00	Tire	1	1
14	33451-109	Washer	1	1
15	18450-00	Nut	1	1
16	18482-00	Pin, Cotter	1	1
17	1882-00	Hub Cap Assembly	1	1
18				
19	1875-00	Bolts & Nuts Kit	1	1
20				
21				
22	1478-00	Spacer Assembly	1	1
23	1306-00	Bushing	1	1

**Standard bracket is for 1 1/2" leafspring.

If required for use with 1 1/4" leafspring, use P/N 1478-00 spacer and P/N 1306-00 adapter.



2000 Series

3200 Series Tailwheel

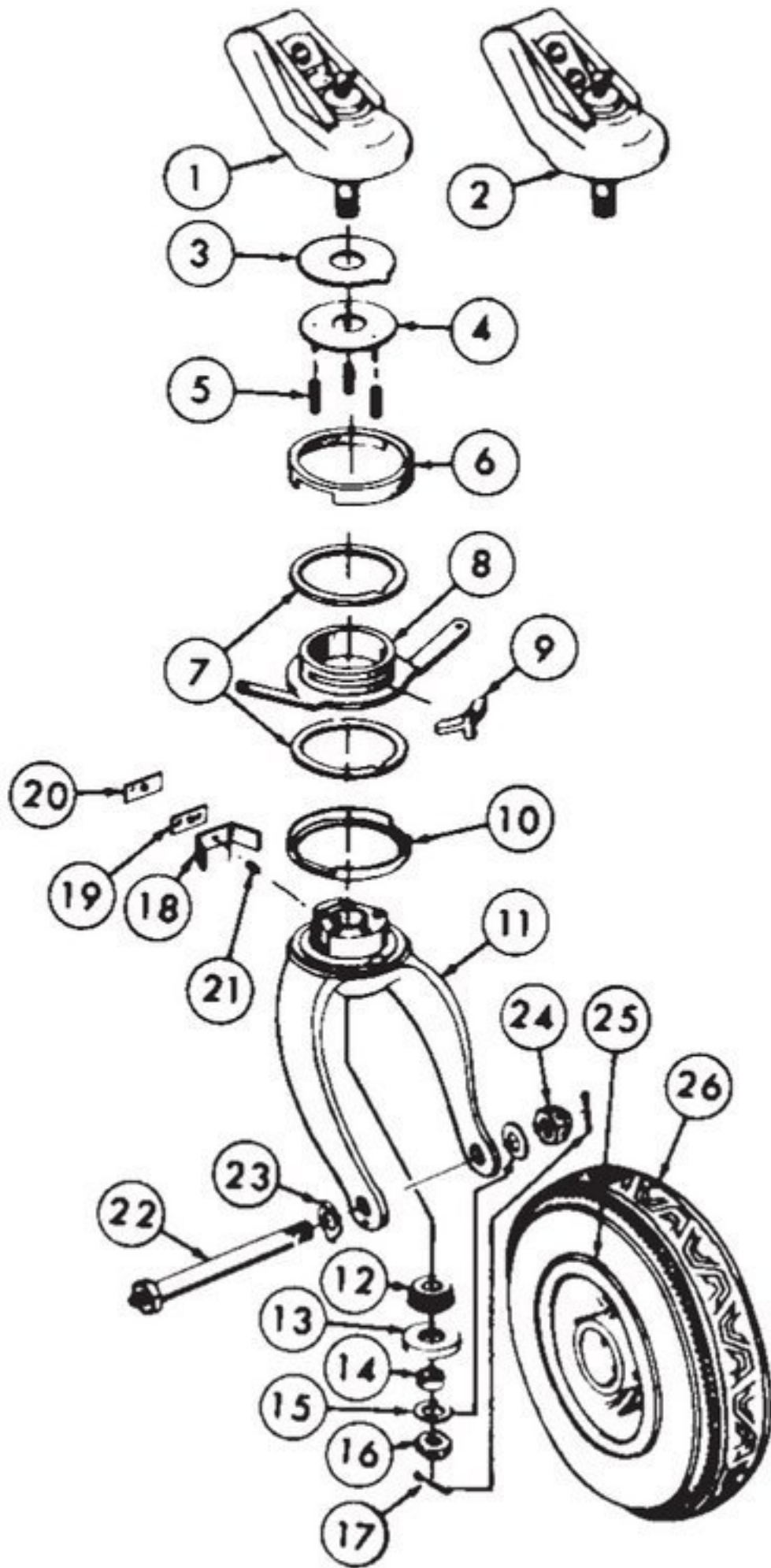
The AVOX Systems 3200 Series is a lightweight 8" tailwheel assembly designed to provide positive steering control far beyond rudder travel and to release easily and automatically to full swivel when aircraft is turned around. Swivel mechanism is sealed to keep out water, sand, and mud. Grease fittings are provided for lubrication. Precision components provide years of trouble-free service under severe operating conditions.

Accessory

P/N 3239-00 Spring Connector Kit

Item No.	Part No.	Description	No. Required			
			3200	3200-1	3200-3	3200-5
1	3216-00	Bracket Assy.*	1	1		1
2	800613-00	Bracket Assy.			1	
3	3207-00	Washer, Thrust	1	1	1	1
4	3234-00	Thrust Plate Assy.	1	1	1	1
5	3233-00	Spring, Compression	5	5	5	5
6	3235-02	Dust Cap, Upper	1	1	1	1
7	3206-00	Washer, Thrust	2	2	2	2
8	3214-00	Arm Assembly	1	1	1	1
9	3219-00	Pawl	1	1	1	1
10	3235-01	Dust Cap, Lower	1	1	1	1
11	3224-00	Fork Assy.	1	1	1	1
12	13286-00	Cone Bearing	1	1	1	1
13	1863-00	Retainer, Grease	1	1	1	1
14	2504-01	Spacer	1	1	1	1
15	33451-020	Washer	2	2	2	1
16	18450-00	Nut, Shear	1	1	1	1
17	33510-283	Pin, Cotter	2	2	2	1
18	3222-00	Spring	1	1	1	1
19	3258-00	Spacer	1	1	1	1
20	3258-01	Spacer	1	1	1	1
21	3257-00	Pin	1	1	1	1
22	3236-00	Axle Assy.	1	1	1	
23	3225-00	Washer, Lock	1	1	1	
24	33475-008	Nut, Castle	1	1	1	
25	3244-00	Wheel Assy.		1		
26	2600-00	Tire & Wheel Assy.	1		1	

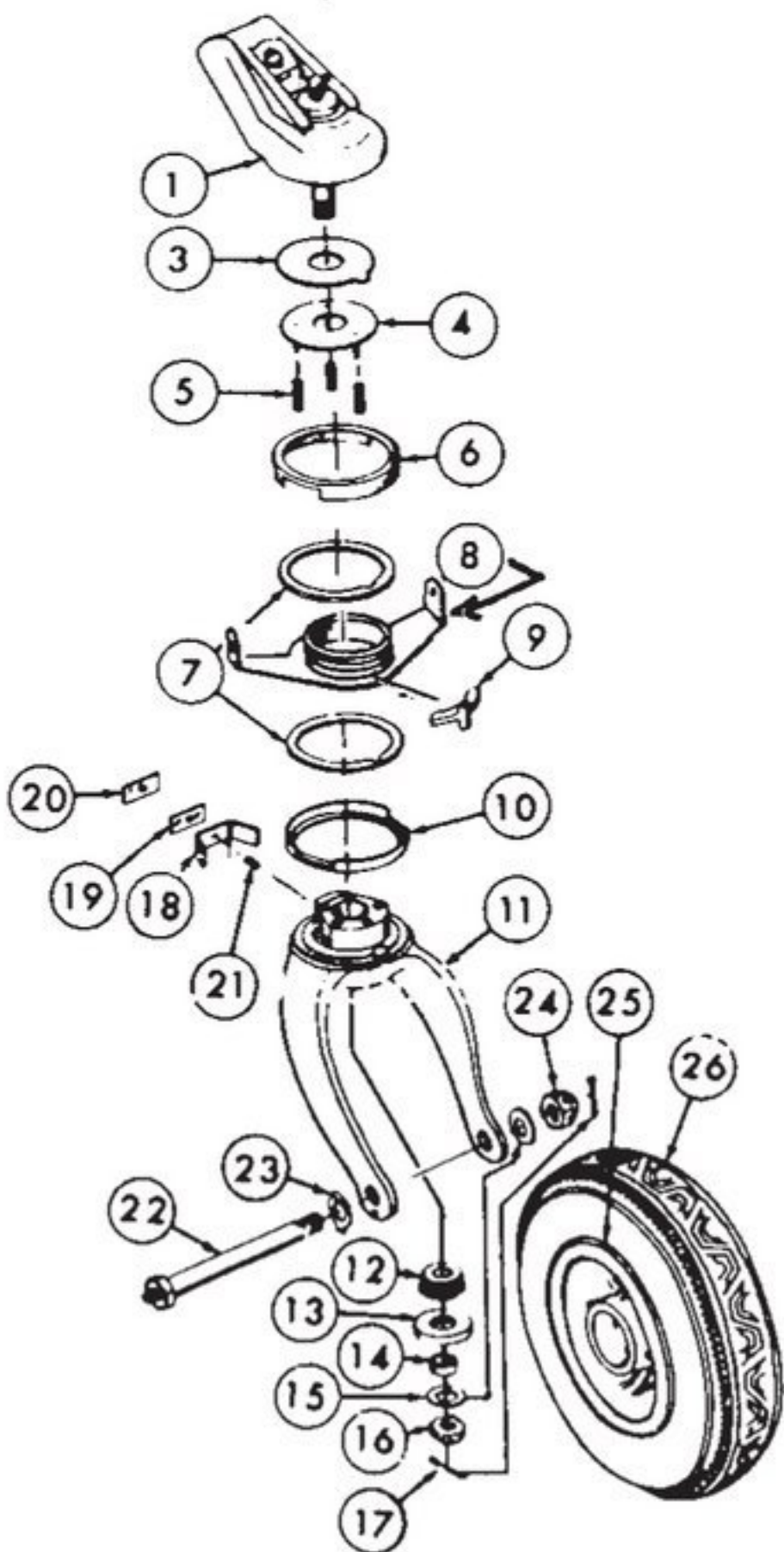
*Standard brackets for 1 3/4" leafspring
-If required for use with 1 1/2" leafspring use Part No. 3241-15 for special installation kit
-If required for use with 1 1/4" leafspring use Part No. 3243-01 for special installation kit



3200A Series Tailwheel

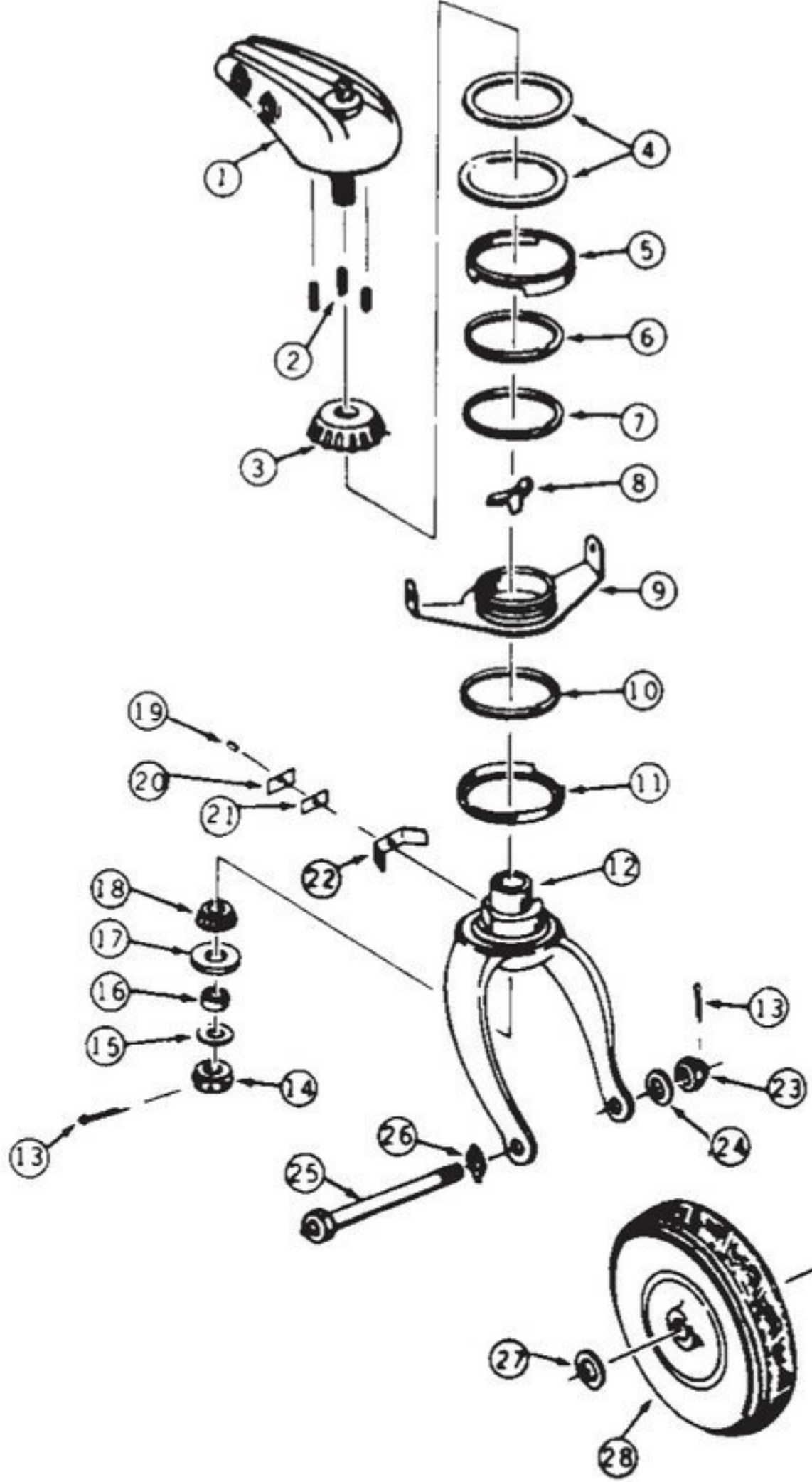
Item No.	Part No.	Description	No. Required
			3200A
1	3216-00	Bracket Assy.*	1
3	3207-00	Washer, Thrust	1
4	3234-00	Thrust Plate Assy.	1
5	3233-00	Spring, Compression	5
6	3256-02	Dust Cap, Upper	1
7	3206-00	Washer, Thrust	2
8	3214T	Arm Assembly	1
9	3219-00	Pawl	1
10	3256-01	Dust Cap, Lower	1
11	3224-00	Fork Assy.	1
12	13286-00	Cone Bearing	1
13	1863-00	Retainer, Grease	1
14	2504-01	Spacer	1
15	33451-020	Washer	2
16	18450-00	Nut, Shear	1
17	33510-283	Pin, Cotter	2
18	3222-00	Spring	1
19	3258-00	Spacer	1
20	3258-01	Spacer	1
21	3257-00	Pin	1
22	3236-00	Axle Assy.	1
23	3225-00	Washer, Lock	1
24	33475-008	Nut, Castle	1
25	3244-00	Wheel Assy.	
26	2600-00	Tire & Wheel Assy.	1

The AVOX Systems 3200A Series has all the quality features of the 3200 Series, with the additional benefit of even heavier-duty performance due to the 3214 T arm assembly.



3400 Series Tailwheel

The best features of all AVOX Systems Tailwheel Assemblies are combined in the 3400 Series to produce the finest, most shockproof tailwheel available. With its 8" pneumatic wheel, it is a similar but heavier-duty version of the 3200 Series. Swivel mechanism is sealed to keep out water, sand, and mud. Tailwheel is manufactured for 7/8" tube spring mounting.

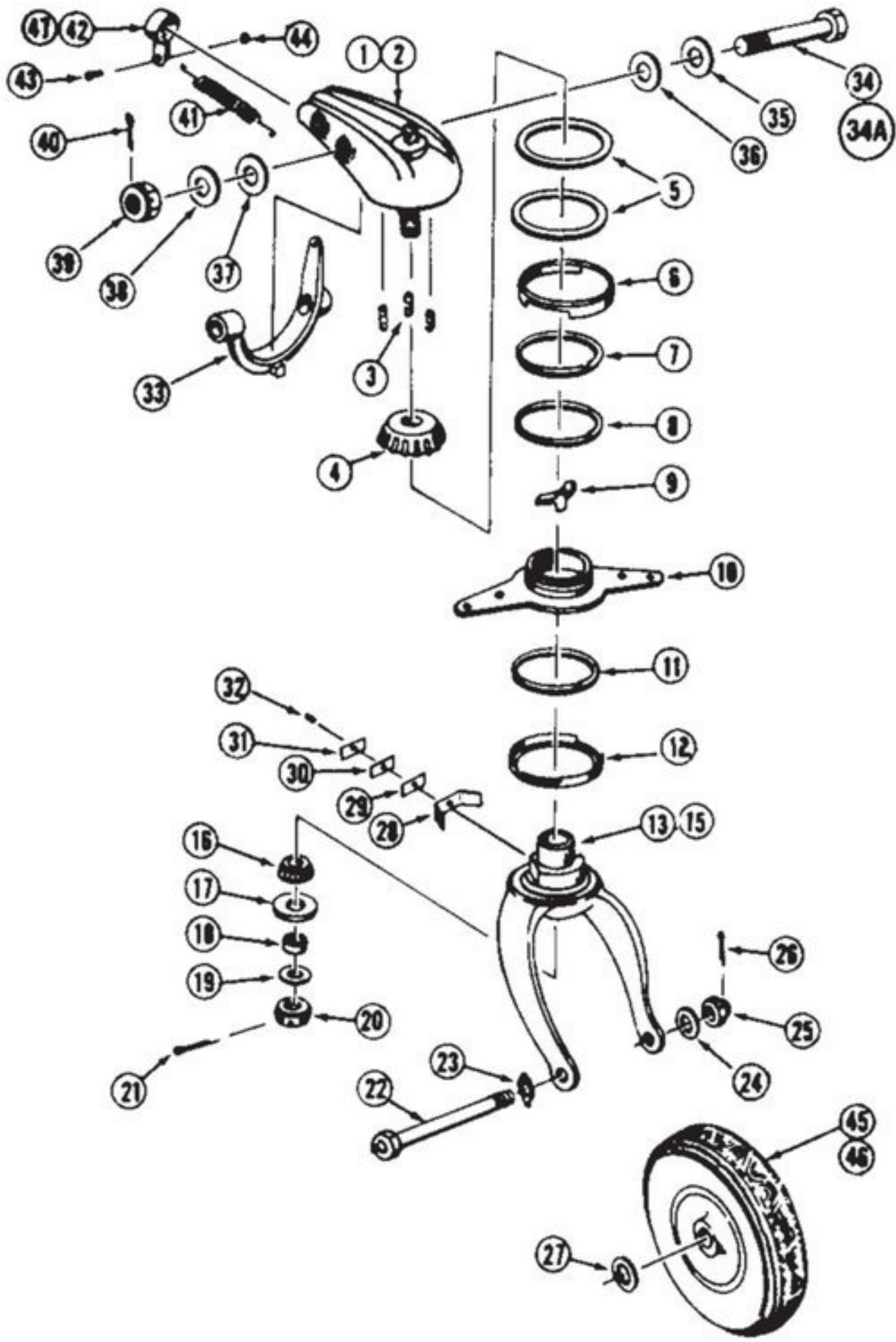


Item No.	Part No.	Description	No. Required	
			3400	3400-1
1	3412-00	Bracket Assy.	1	1
2	3233-00	Compression Spring	A/R	A/R
3	13289-00	Cone, Bearing (08188)	1	1
4	3407-00	Spacer	A/R	A/R
5	3411-02	Dust Cap, Upper	1	1
6	3408-00	Washer	1	1
7	3408-01	Washer	A/R	A/R
8	3219-00	Pawl	1	1
9	3410-03	Arm Assembly	1	1
10	3408-02	Washer	A/R	A/R
11	3411-01	Dust Cap, Lower	1	1
12	3413-00	Fork Assembly	1	1
13	33510-283	Pin, Cotter	2	2
14	18450-00	Nut, Shear	1	1
15	33451-020	Washer	A/R	A/R
16	2504-01	Spacer	1	1
17	1863-00	Retainer, Grease	1	1
18	13286-00	Cone, Bearing (A4050)	1	1
19	3257-00	Pin	1	1
20	3258-01	Spacer	1	1
21	3258-00	Spacer	1	1
22	3222-00	Spring	1	1
23	33475-008	Nut, Castle	1	1
24	33451-020	Washer	A/R	A/R
25	13294-00	Axle Assembly	1	1
26	3225-00	Washer, Lock	1	1
27	2832-05	Washer		2
28	2600-00	Tire & Wheel Assy.		1

Item No.	Part No.	Description	No. Required						
			-1	-3	-5	-7	-13	-15	-17
1	3412-01	Bracket Assembly	1	1	1	1			
2	3412-02	Bracket Assembly					1	1	1
3	3233-00	Spring, Compression	A/R	A/R	A/R	A/R	2	2	2
4	13289-00	Cone, Bearing (08188)	1	1	1	1	1	1	1
5	3407-00	Spacer	A/R	A/R	A/R	A/R	A/R	A/R	A/R
6	3411-07	Dust Cap, Upper	1	1	1	1	1	1	1
7	3408-00	Washer	1	1	1	1	1	1	1
8	3408-02	Washer	A/R	A/R	A/R	A/R	A/R	A/R	A/R
9	3219-00	Pawl	1	1	1	1	1	1	1
10	3410-05	Arm Assembly	1	1	1	1	1	1	1
11	3479-01	Washer	A/R	A/R	A/R	A/R	A/R	A/R	A/R
12	3411-05	Dust Cap, Lower	1	1	1	1	1	1	1
13	3423-03	Fork Assy. -10 in.	1			1			
15	3413-01	Fork Assy. -8 in.		1	1		1	1	
16	13286-00	Cone, Bearing (A4050)	1	1	1	1	1	1	1
17	1863-00	Retainer, Grease	1	1	1	1	1	1	1
18	2504-01	Spacer	1	1	1	1	1	1	1
19	33451-020	Washer	1	1	1	1	1	1	1
20	18450-00	Nut, Aircraft Shear	1	1	1	1	1	1	1
21	33510-283	Pin, Cotter	1	1	1		1	1	1
22	13294-00	Axle Assembly	1	1	1		1	1	1
23	3225-00	Washer, Lock	1	1	1		1	1	1
24	33451-019	Washer	1	1	1		1	1	1
25	33475-008	Nut, Castle	1	1	1		1	1	1
26	33510-283	Pin, Cotter	1	1	1		1	1	1
27	2832-05	Washer		2	2		2	2	
28	3432-00	Spring	1	1	1		1	1	1
29	3433-00	Spacer	A/R	A/R	A/R	A/R	A/R	A/R	A/R
30	3258-00	Spacer	A/R	A/R	A/R	A/R	A/R	A/R	A/R
31	3258-01	Spacer	A/R	A/R	A/R	A/R	A/R	A/R	A/R
32	3257-00	Pin	1	1	1	1	1	1	1
33	3426-00	Bell Crank	1	1		1		1	1
34	33372-337	Bolt	1	1		1		1	1
34A	33372-330	Bolt			1		1		
35	33451-014	Washer	1	1	1	1	1	1	1
36	3476-00	Bushing	1	1		1		1	1
37	3476-00	Bushing	1	1		1		1	1
38	33451-013	Washer	1	1	1	1	1	1	1
39	33476-013	Nut	1	1	1	1	1	1	1
40	33510-134	Pin, Cotter	1	1	1	1	1	1	1
41	3477-00	Spring	1	1		1		1	1
42	3478-00	Clamp	1	1		1			
43	33478-515	Nut	1	1		1			
44	33321-227	Screw	1	1		1		1	1
45	2600-00	8" Tire & Wheel Assy.		1	1		1	1	
46	3245-01	10" Tire & Wheel Assy.	1						1
47	3478-01	Clamp						1	1

3425 Series Tailwheel

This steerable, full swivel assembly, equipped with a choice of 8" or 10" wheel, provides that extra measure of rugged dependability that has distinguished AVOX Systems tailwheels for more than half a century. Built-in extra strength assures exceptional performance on utility aircraft intended for hard usage and rough terrain. Tailwheel is manufactured for tube spring mounting. P/N 3412-01 bracket accepts 15/16" tubes and P/N 3412-02 bracket accepts 1" tubes.



Item No.	Part No.	Description	No. Required					
			-1	-3	-5	-7	-17	-23
1	3412-01	Bracket Assembly	1	1	1	1		**
1A	3412-02	Bracket Assembly					1	
2	3233-00	Spring, Compression	A/R	A/R	A/R	A/R	2	2
3	13289-00	Cone, Bearing (08118)	1	1	1	1	1	1
4	3407-00	Spacer	A/R	A/R	A/R	A/R	A/R	A/R
5	3411-01	Dust Cap, Upper	1	1	1	1	1	*
6	3408-00	Washer	1	1	1	1	1	1
7	3408-01	Washer	A/R	A/R	A/R	A/R	A/R	A/R
8	3219-00	Pawl	1	1	1	1	1	1
9	3410-03	Arm Assembly	1		1			**
	3410-05	Arm Assembly		1		1	1	
10	3408-02	Washer	A/R	A/R	A/R	A/R	A/R	A/R
11	3411-02	Dust Cap, Lower	1	1	1	1	1	**
12	3423-01	Fork Assembly	1	1	1	1	1	1
13	33510-283	Cotter Pin	2	2	1	1	2	2
14	18450-00	Nut	1	1	1	1	1	
14A	33475-008	Nut						1
15	33451-019	Washer	1	1			1	1
16	2504-01	Spacer	1	1	1	1	1	1
17	1863-00	Retainer, Grease	1	1	1	1	1	1
18	13286-00	Cone, Bearing (A4050)	1	1	1	1	1	1
19	3257-00	Pin	1	1	1	1	1	1
20	3433-00	Spacer	A/R	A/R	A/R	A/R	A/R	A/R
21	3433-01	Spacer	A/R	A/R	A/R	A/R	A/R	A/R
22	3432-00	Spring	1	1	1	1	1	1
23	33475-008	Nut	1	1			1	1
24	13294-00	Axle Assembly	1	1			1	1
25	3225-00	Lock Washer	1	1			1	1
26	3245-01	Tire & Wheel Assembly	1	1			1	1
27	33451-020	Washer	1	1	1	1	1	1

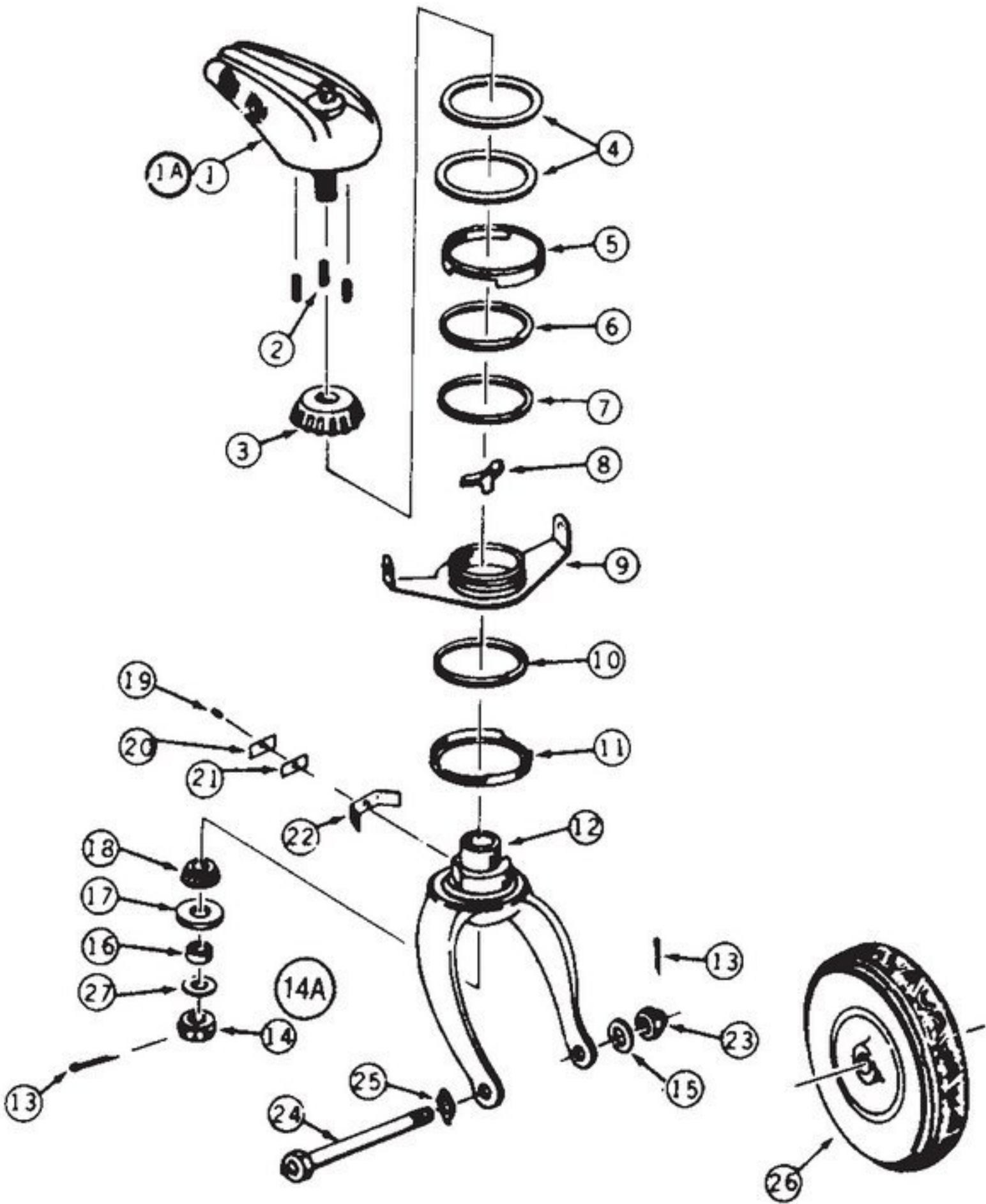
NOTE:-1, -3, -5, -7, -17 assemblies are manufactured for tube spring mounting. P/N 3412-01 bracket accepts 15/16" tubes and P/N 3412-02 bracket accepts 1" tubes.

-23 assembly is manufactured for leafspring mounting and uses the following part numbers:

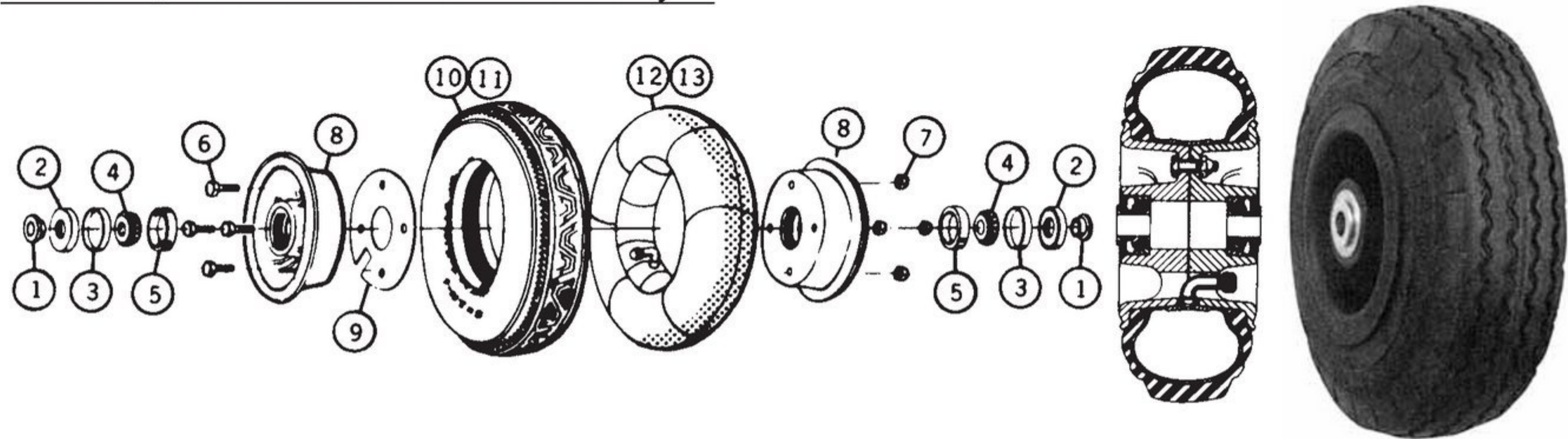
**P/N 801355-02 Bracket Assembly
P/N 3411-00 Dust Cap Set (Made up of items 5 & 11)
P/N 3410-07 Arm Assembly

3450 Series Tailwheel

Similar in design to the 3400 and 3425 Series Tailwheels, the 3450 Series features a 10" pneumatic wheel and the same heavy-duty, shockproof construction as the 3425 Series. As such, it will withstand the most severe operating conditions while providing the same reliable, trouble-free performance as the 3400 and 3425 Series Tailwheels.



Model 2600 / 8" Pneumatic Wheel And Tire Assembly



The Model 2600 is used on all AVOX Systems tailwheel applications requiring an 8" diameter tire. Available for general use, it is also suggested for helicopters, liaison and primary training aircraft, and material handling devices where low weight and high strength are required.

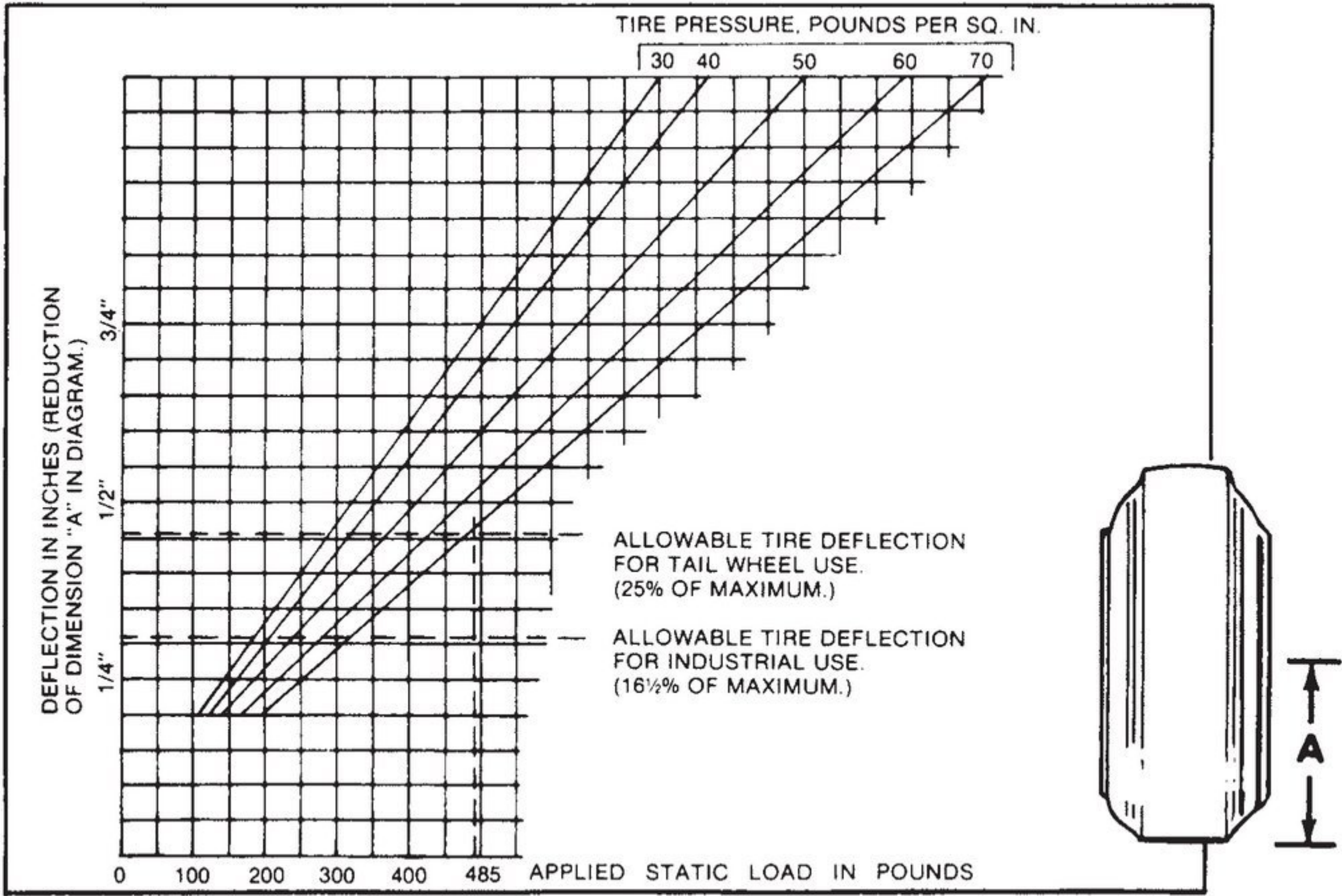
The hub is heavy-duty cast aluminum designed to absorb extremely heavy shock loads. The tires are Safety Rib with tube. Timken bearings for 1/2" axle are standard. Total weight of assembly is only 3 lbs. 13 oz., including bearings. Assembly is available complete and assembled, or the hub, gasket and bolts can be furnished unassembled.

HUB Cast aluminum. Designed for extremely heavy shock load absorption. One of its many uses is on tailwheel assemblies.

TIRE Safety Rib, 4-ply with tube.

BEARING Timken, for 1/2" axle.

Tire & Wheel Assembly P/N 3245-01 10"				
Tire & Wheel Assembly P/N 2600-00 8"				
Item No.	Part No.	Description		
1	3227-00	Spacer	2	2
2	1863-00	Retainer, Grease	2	2
3	1862-00	Spacer	2	2
4	13286-00	Cone, Bearing	2	2
5	13287-00	Cup, Bearing	2	2
6	33371-005	Bolt	4	4
7	33478-202	Nut, Self Locking	4	4
8	2598-00	Hub	2	2
9	2602-00	Gasket	1	1
10	3228-00	8" Tire	1	
11	3246-00	10" Tire		1
12	3223-00	8" Tube	1	
13	3247-00	10" Tube		1



Tire deflection under load (shown as reduction of dimension "A") as load is applied using a given tire pressure (see chart).

NOTE: A copy of our Static Test Report No. 389 witnessed by CAA is also available.



The following chart presents some examples of various AVOX Systems Tailwheel applications.

Tailwheel Model No.	Aircraft Application
2000-00	Piper PA-18 Univair Stinson 108-1,-2,-3
3200-00 Aeronca	Aviat Bellanca Cessna 120 Cessna 140 Cessna 140A Cessna 170 Cessna 170A Luscombe Piper Super Cab Regal Air Stinson Univair
3200A	Regal Air
3200-03	Piper PA-18
3450-23	Piper Pawnee Brave, Eagle 300
3400-00	Cessna 180**
3400-01	Cessna 185**
3425-01	Cessna 180**
3425-13	Cessna 180**, A185E, A185F
3425-15	Cessna 185**
3425-17	Cessna 185**, A185E, A185F
3450-03	Cessna 185**
3450-17	Cessna 188 and A188 Ag. Wagon**

**Used on older model Cessna aircraft.

WARNING

IMPROPER USE OF A TAILWHEEL MAY RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. IMPROPER USE INCLUDES, BUT IS NOT LIMITED TO, FAILURE TO DETERMINE THE PROPER REPLACEMENT EQUIPMENT, THE PROPER ACCESSORIES, THE PROPER NUMBER OF "A/R" (AS REQUIRED) ITEMS AND THE PROPER INSTALLATION INSTRUCTIONS.



AVOX Systems

225 Erie Street • Lancaster, NY 14086 • Tel: 716 683-5100 • Fax: 716 681-1089 • Technical Sales: 800 459-3690

Posted June 2021 by Brian D. Szafranski, Elma NY USA
Please do not reprint for commercial profit.
For historical reference only.